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FINANCIAL REFORM: A PERSPECTIVE

by

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Lastly, it seems to follow that when we are looking for policies which make for economic stability, we must not be led aside by a feeling that monetary troubles are due to 'bad' economic policy, in the old sense, that all would go well if we reverted to free trade and laissez-faire

There is no reason why policies which tend to economic welfare, statically considered should also tend to monetary stability.

"A Suggestion for Simplifying the
Theory of Money" 1935

J. R. Hicks.

I INTRODUCTION

Hardly an economy has not been deregulating its financial system at a rapid pace, although there are varying degrees of optimism about the impact. Most countries regard deregulation as inevitable. Some regard it as desirable also, with Australia in the vanguard of this group. Others such as Italy or France are not particularly encouraged. Japan seems to take the view that as long as stability is not threatened the changes will be acceptable. Even though financial reform is comparatively new a second wave of reforms is appearing on the horizon.

A straightforward explanation of the reform process - so straightforward that an explanation is hardly needed - is that it is a one-off adjustment of the financial system motivated by a better appreciation of the deficiencies of the current system and the emerging needs of the economy. The process is not literally one-off. The authorities learn by doing and clearly there are inherent technical difficulties which incur costs. There are also avoidable design faults and institutional rigidities. This paper proposes the view that even without these phenomena we should expect financial reform to be a continuing and a difficult process which needs to be comprehended in a dynamic, developmental framework.

Two forces interact to motivate reform. The first is the tension between public and private interests in financial reform. The second is the nature of financial evolution itself, which in turn has two conflicting aspects. According to Hicks (1967), whose direction this paper follows, financial evolution tends to be both economising and

destabilising. Financial evolution which saves scarce resources (economising) runs the risk of instability. Reform which concentrates on stability gives rise to demands for 'economising' deregulation. Hence the reform process may well be non-convergent.

In section II the Hicksian view is summarised. While establishing a framework for the analysis of financial evolution, the arguments are insufficient for a clear understanding of the reform process as the role and purpose of regulation is unexamined, except to the extent that the public interest is assumed implicitly to lie behind actual reforms. In section III a more comprehensive approach to regulation is developed, which brings out private interest motivations. This paper differs from other analyses in supporting a *prima facie* case for regulation on public interest allocative grounds even in a static, partial equilibrium framework. This conclusion hinges on the importance of imperfect information. Whether the regulations which are desirable in the public interest correspond sufficiently to those demanded in the private interest becomes an important question.

The interdependence between economising and destabilising aspects of financial evolution has implications for the feasibility of maintaining a competitive financial structure. This paper follows Hirsch (1974) in arguing that imperfectly competitive structures such as oligopoly may be the inevitable consequence of the achievement of financial stability

In section IV an integrated framework, stressing the stability and efficiency effects of financial reform and innovation, and including public and private interests is set out. In section V some recent

developments, especially from the UK, are used to illustrate the framework of this paper.

Finally section VI examines the prospects for, and the desirability of, further changes in the structure of financial markets, policies and regulation.

Three conclusions emerge from the discussion. First, financial reform is likely to be an ongoing process characterised by many changes which have no obvious welfare enhancing implications. Second enthusiasm for *laissez-faire* in financial markets becomes muted when imperfect information and stability are considered to be important market phenomena. Third, once stability is brought into the picture even the feasibility of a competitive financial structure is open to question.

II THE NATURE OF FINANCIAL EVOLUTION

The starting point is the view put forward by Hicks (1967) in "Monetary Theory and History - an attempt at perspective".

Hicks argues that as "money itself is evolving", monetary theory must be "historically conditioned". In his view financial evolution has two aspects.

From one of them it was a natural piece of economizing. Metallic money is an expensive way of performing a simple function; why waste resources in digging up gold from the ground when pieces of paper (or mere book entries) which can be provided, and transported, at a fraction of the cost will do as well? That is the reason why the credit system grows; that it provides a medium of exchange at much lower cost but on the other side there is the penalty that the credit system is an unstable system. It rests upon

confidence and trust; when trust is absent it can just shrivel up. It is unstable in the other direction too; when there is too much 'confidence' or optimism it can explode in bursts of speculation. Thus in order for a credit system to work smoothly, it needs an institutional framework which shall restrain it on the one hand, and shall support it on the other. To find a framework which can be relied on to give support when it is needed, and to impose restraint just when it is needed, is very difficult; I do not think it has ever been perfectly solved. Even in this day we do not really know the answer.

Hicks (1967), 158-159.

Hicks is commenting on the development of the credit system and its differences from a commodity or token monetary system. His essential ideas are applied in this paper to changes in financial structure which, though important, are of a lesser order of magnitude. Not every case of financial innovation or deregulation increases instability. Nor, as will be clarified in the next section, are all innovations "economising". The basic idea though is clearly a powerful one.

The view that financial evolution economises on scarce resources appears to be uncontroversial and is supported by, for example, computer-oriented developments: EFTPOS, ATMs, sweep accounts. However Hicks emphasis on reductions in social cost may not be so compelling for all innovations, some of which may be attributed to the avoidance of regulation (NBPIs in general?) or to tax-based incentives (discount bonds earning us interest). Subsidies to transactions and non-price competition fall into this category. It may be, of course, that such products are the result of monopolistic competition so that they genuinely waste resources. An alternative stance suggests that avoidance of regulation improves welfare by undermining socially inefficient regulation. It is suggested below

that the assumption of perfect competition is especially significant in this case.

The coexistence of financial evolution and instability has much support from 19th century experiences. Since Akerlof (1970), the implications of adverse selection, induced by asymmetric imperfect information, for market failure have been clear. Trust is one way of overcoming this failure so it becomes a vital commodity if markets are to function adequately in the face of informational deficiencies. In financial markets the consequences of a decline in confidence or trust are far more severe than a partial equilibrium welfare analysis indicates, as the rush to consolidate lending with only trustworthy, solvent (liquid?) borrowers, creates a dramatic internal drain and a deep recession. This linkage between adverse selection and financial crisis is developed in the extraordinarily rich analysis of Hirsch (1974). The recent analysis of Diamond and Dybvig (1984) formally underpins the idea that an unregulated financial system possesses a low level equilibrium corresponding to a loss of confidence in the financial system.

Instability in the direction of speculation ("too much 'confidence'") receives theoretical support from recent literature on speculative bubbles (Flood and Garber, 1980; Blanchard, 1979; Hahn, 1980) which demonstrates that control of an exogenous monetary magnitude, such as the base, is not sufficient, even in terms of pure theory, to prevent a speculative boom.

Application of the Hicksian schema to modern financial systems does not need to assume that all innovations are destabilising. EFT

constitutes a reduction in transactions costs but it is difficult to see how it could, of itself, be destabilising. Unrestricted foreign exchange dealings are economising (in the sense of risk reduction) but they may promote instability by, for example, allowing the exchange rate to follow an unstable path, as in rational expectations models, or allowing transactors to follow "herd" instincts.

Hicks does not develop his ideas on regulation, besides noting that the conflict between efficiency and stabilisation makes intervention difficult. It is clear that regulation must be brought into the picture more fully.

III FINANCIAL REGULATION

Private and Public Interest

In analysing regulation of the financial sector, judgement on the appropriateness of public interest or private interest approaches appears to be overwhelmingly in favour of Stigler's (1964) private interest approach. There are several reasons for this. First, such is the dominance of the rationality assumption in economics (in the stronger sense of self-seeking rather than the existence of a preference ordering) that it appears increasingly quaint to appeal to the benevolence of politicians or officials to explain governmental actions. Even if they start out with the best of intentions, "capture" is as swift as it is sure.

Second, finding regulations which obviously remove or reduce the welfare losses attributable to market imperfections or externalities¹ has always been problematic.

The third and major reason for taking the private interest explanation seriously is that, in the case of banking it seemed to predict the kind of regulations which have existed. Stigler cites three types of regulation demanded by firms: barriers to entry, price control (so that oligopolists do not denude profits through competition with each other) and the taxing of substitutes/subsidy to complements.

In the banking industry these factors have been and to some extent still are reflected in banking cartels (and the jealously guarded privilege of using the word "bank"), the non- or low-payment of interest on chequing accounts, deposit rate ceilings and the exclusion of NBFIs from LLR. The perennial demand by banks for reserve ratios to be imposed on NBFIs (or reduced on banks) fits neatly also.

However, despite this seemingly formidable demonstration of the power of the private interest approach I suggest that its success is attributable as much to the restricted models which are the vehicles of analysis as to the veracity of the hypothesis.

The assumption of a competitive loan market is especially favourable to the conclusion that regulation induces welfare losses (in which case it cannot be the outcome of informed public interest policy).

1. Appeals to unspecified second-best considerations are especially recherche.

For example, the alternative assumption that a banking cartel operates in the loan market yields the result that an effective loan rate ceiling could increase loan "output" towards the competitive equilibrium and, ipso facto, reduce welfare loss².

More important though is the assumption of perfect information. Stiglitz and Weiss (1981), for example, show how the assumption of asymmetric imperfect information, through the process of adverse selection, may generate equilibrium credit rationing. See Stiglitz (1986) for an extensive survey of this approach. If official credit rationing gives way, on deregulation, to competitive credit rationing the calculation of welfare loss is a complex matter.

An analogous result is suggested if it is banks whose skill or honesty is open to doubt. The welfare loss induced by this informational deficiency may be ameliorated by a licensing system (as a device for signalling quality). Diamond and Dybvig (1984) demonstrate that bank licensing may increase welfare in a model emphasising imperfect information.

The final factor biasing the analytical outcome in favour of the private interest approach is the partial equilibrium nature of much welfare analysis. As Hicks makes clear financial evolution has two important features: it is economising and destabilising. While the saving of scarce resources is usefully analysed in a partial equilibrium framework, the stability implications cannot be³,

2. A severe loan rate maximum increases welfare loss by reducing "output" even more.

3. It is arguable that official action to prevent instability is also interpretable in light of private interests as a particular government, losing office in the event of financial disruption, no longer has the means to pursue its private interest.

especially when, as with Diamond and Dybvig, there are multiple equilibria. The earliest "welfare" analysis of Bagehot (1915) can be rephrased as recommending last resort lending through central banks as intervention to remove an economy-wide externality.

The consequences of relaxing the assumptions of perfect competition and perfect information and of recognising the unstable nature of an unregulated credit system are that a beneficial role is carved out for licensing, LLR provisions and (mild) loan rate maxima⁴. The private interest approach explains a similar menu with however deposit rate ceilings in place of the loan rate ceiling.

There is little reason then to doubt the influence in the reform process of private interests, nor is there reason to doubt the necessity for beneficial public interest intervention. The gap between them, though, may not be as wide as it is often thought to be. There is a surprising amount of overlap, at least in gross terms, between the regulations which may serve the public interest and those regulations which the private interest approach predicts will be demanded by banks.

Public and Private Interest Deregulation

The question which arises for both private and public interest approaches to regulation is the extent to which they can throw light on the trend towards deregulation.

4. A role has not been revealed for qualitative or quantitative lending guidelines. Their impact on economic welfare is put in different perspective when the possibility of the new-price rationing equilibrium is against which the regulated equilibrium must be compared, is introduced.

The public interest approach presumably depends heavily on the fashionable preference for free markets. Also actual experience with regulation has shown the limitations of beneficial involvement in practice, as private and bureaucratic interests begin to dominate. Furthermore there is a tendency to compare the actual performance of one system with the idealised performance of another; that is, to compare muddle with model. Hence it may well be that perfect competition, as the last untried Utopia, has had an easy ride so far.

How does the private interest approach fare in explaining deregulation? An analysis couched in terms of the demand by firms for and the supply by governments of regulation must be able to explain increases and decreases in the "quantity" of regulation. There are in fact at least four reasons for expecting lower demand or supply.

First, the advantages gained by the banks' successful pursuit of regulation are unlikely to be permanent (though they may last a long time), barriers to entry especially motivating structural changes which undermine the market power of banks. Establishment of independently-owned and bank-owned NBFIs, with assets and liabilities which are close but imperfect substitutes to bank loans and deposits, is encouraged. After a time the scale of the finance (bank plus NBFI) industry will approximate the scale of an unregulated (bank only) sector and banks' excess profits will have been eroded away. At this point banks have little reason to preserve the maximum rate on bank deposits.

A second development reducing banks' demand for continued regulation is technical progress in the payments system. As depositors hold fewer non or low-interest bearing chequing accounts, the profit from administering the payments system is reduced.

The third factor is inflation under which the maintenance of interest rate ceilings becomes problematic. Nor is 100 per cent indexation of rate ceilings to inflation sufficient. For example, were the tax-adjusted Fisher equation to operate, the increase in the nominal rate necessary to preserve a constant real post-tax rate when inflation rises by 1 per cent is $1/(1-t)$ per cent with t "the" rate of income tax. With

$t = 0.5$, the required increase in interest rate ceilings is 2 per cent for each additional percentage point of inflation. Thus inflation and interest rate ceilings are unlikely to co-exist.

Demands for some kinds of regulation such as LLR or deposit insurance will remain. Also, insofar as a bank licence is a signal of quality there will be a demand for licensing.

Fourth, external reforms such as the abolition of exchange control reduce both the usefulness and the durability of private interest regulation. The availability of deposits and loans at "world" rates from overseas institutions and the ease of domestic banks conducting business offshore renders interest rate ceilings and (uncompensated) reserve ratios obsolete, compelling swift deregulation under peril of disintermediation. Active lobbying by overseas banks should also be expected with free capital movements. A particular example of this process might start with the huge Japanese current account surplus,

the obverse of which is huge Japanese lending to the rest of the world. Insofar as Japanese residents prefer to carry out the lending through Japanese institutions a significant new private interest has developed. Bhadhuri (1986) emphasises this point.

Microimplications of Macropolicy

So far the desirability of a competitive financial system has been questioned. It is possible to go further and question its feasibility. Hirsch (1974) makes the significant point that LLR and deposit insurance are inimical to a perfectly competitive banking system. His justification for regulation starts from the formal identity between the saue qui peut behaviour of banks during a financial crisis and the adverse selection behaviour in the work of Akerlof (1970). The awful consequences of financial panics provide, however, more than sufficient justification for central banking, for lender of last resort facilities or deposit insurance and possibly for more direct intervention.

In the case of LLR moral hazard is a problem in a competitive environment as banks, freed from some of the consequences of ill-considered lending, indulge in socially excessive risk-taking. The actual and to some extent the appropriate response is to limit LLR to a small group of banks which, due to social homogeneity and the self-reinforcing nature of small group interactions, may be expected to forego the opportunities for privately profitable but socially hazardous investments which LLR encourages. A cartel is the inevitable outcome of these interactions. The cartel is, of course, supported by the central bank as advocates of the private interest

approach would expect. However, in this case, there is an entirely sensible rationale for the support.

The situation with deposit insurance is slightly different with banks making themselves indispensable through size and strategic investment (in, for example, shares of significant companies). The German banking structure is the classic example here. Depositors, noticing these developments and benefitting, usually, from less than complete insurance, favour large banks. Such a dynamic leads to oligopoly. Thus LLR supports and is supported by a cartel while deposit insurance promotes and is promoted by oligopoly.

In this section we have suggested both a role for public interest regulation in the financial sector and a similarity between the kinds of regulation wanted by the private sector and needed in the public interest. The following section integrates these ideas into the Hicksian framework.

IV AN INTEGRATED FRAMEWORK

This section considers interactions between the allocative and stability aspects of financial evolution and public and private interests in regulation. The interdependencies suggest that financial reform is most appropriately viewed in a dynamic and developmental framework.

The essential linkages are summarised in figure 1. The upper box represents private actions and it is partitioned into exogenous and

endogenous innovations. An exogenous innovation is a new product or process which does not depend on financial regulation for its introduction. There are certainly examples of this type: the substitution of goldsmiths' I.O.U's for gold coins at the beginning of banking development, EFT in modern times.

An endogenous innovation owes its introduction to a policy change, regardless of the reasons for the change. The innovation could emerge from an increase in financial regulation (an explanation of much non-bank financial intermediation) or a decrease in financial regulation (new interest-bearing deposit instruments for example). In the first case the innovation is due to evasion, in the second case it is due to new opportunities.

This classification is adequate for our purpose of analysing the progress of financial reform. However it bypasses the explanation of financial innovation itself.

The lower box classifies official actions into allocative, stabilising and private interest interventions. In the previous section we noted that, contra the private interest approach, there is a non-negligible and possibly extensive set of circumstances which merit intervention. One motivation for intervention arises from a change in economic opinion concerning the nature of the financial system. This could be called an exogenous intervention and added to the lower box. It would then have an arrow leading directly to "endogenous innovation". It has been omitted to simplify the figure. When account is taken of exogenous changes in economic opinion it is

Private

exog. innovation

Endog. innovation

destabilising

Economising

(financial crisis)

allocative intervention

stabilising intervention

private interest intervention

Public

clear that the interactions can be traced starting from exogenous, allocative or stabilising intervention.

Consider an economising exogenous innovation (linkage [1a]) traceable to reduced transactions costs due to computing applications. EFT is an obvious case as is the use of automatic teller machines. Both are means of payment innovations. Store of value innovations include sweep accounts, swaps and automatic sell provisions on securities markets.

If the innovation is introduced by a new firm it may induce a competitive response by existing institutions ([1b]). For example banks may try to set up their own affiliates in a new industry or takeover a newcomer. If this isn't possible or profitable a demand for private interest regulation may emerge (2). Numerous examples are available for Australia as banks successfully argued against the membership of credit unions into Bankcard and earlier this century excluded foreign banks from the clearing house. The successful exclusion of foreign banks from Australia for 40 years provides perhaps the perfect example of an exogenous innovation (attempted entry by foreign banks) leading to private interest regulation.

Linkage (3) concerns regulation which gives the private financial sector the incentive to innovate. The sub-linkages 3a, b and c converge as financial institutions exploit profitable opportunities whatever the motivation behind the initial regulation. The process can originate with 3a, b or c if the initiating factor is a change in economic opinion.

An example of an allocative intervention leading to innovation presents itself in the recent relaxation of membership requirements for market makers in the UK stock exchange deregulation. The opportunity arises for banks say, to take over stock exchange dealers. The abolition of a minimum charge for stock exchange transactions is another allocative intervention, carrying only the implication of reduced competitive margins inducing further trades, *ceteris paribus*.

Innovation, especially in response to public interest intervention may not be economising, except in a strictly private sense. While a regulatory-constrained market outcome may be sub-optimal, the unconstrained equilibrium may also be sub-optimal (or "super-optimal" if the scale becomes "too large"). In the previous section the example was given of a "mild" base rate ceiling reducing monopoly loan market welfare loss. Removal of such a ceiling or its successful evasion increases welfare loss. Another example is the banks' frequent request for the payment of a market interest rate on reserves. Removal of the "tax element" leads to a shifting of deposits towards the banking system and away from NBFIs with the equilibrium banking sector larger than in the absence of any reserve ratio.

Examples of intervention designed to increase financial stability (3b) leading to endogenous innovation are the original application of reserve ratios to banks leading to evasion of the "tax" through the establishment of NBFIs. The prohibition of banks becoming involved

in "speculative" lending, circumvented by carrying out such business through affiliated NBFIs is another example.

The final linkage (3c) is between private interest intervention and innovation. Again bank-NBFI interactions figure prominently. If we follow the argument of the previous section and interpret deposit rate ceilings as constraints which assist a banking cartel in controlling intra-group competition, it provides a relevant example. The evolution of NBFIs as a means of avoiding the restriction is then the relevant endogenous innovation.

To complete the feedback mechanism it is necessary only to note that an endogenous innovation, whether it is economising or not, may attract the attention of the authorities and result in another "layer" of regulation and yet more financial complexity (linkages 4, 4a, 4b, 4c).

An example linking endogenous innovation and intervention is increased competition in securities markets leading to (accelerated) securities market deregulation. Another example is the rapid growth of NBFIs leading to repeal of banking restrictions (private interest). I interpret this as a private interest intervention rather than an allocative intervention because the allocative case is at its weakest when NBFIs are successfully intermediating. The banks' perennial discovery of fairness at such times is to be discounted on the grounds that fairness has validity between individuals not corporations. In any case the capital market acts to equalise (risk-adjusted) rates of return so that bank

shareholders do not suffer from (expected) continuation of unchanged policies.

Finally, innovations may occur in waves rather than in synchronization with the interventions which induce them. This is because high transaction costs make it efficient to offset the gradual incursion of regulation only when the cumulative loss of profit exceeds the set-up costs of, say, a new intermediary

Before moving to stability arguments it should be said that the relatively complicated scenarios set out derive, at least in part, from complexity in the reform-innovation process. One point which could lead to even more linkages stems from the conflicting and shifting relationships between the various motivations for intervention. Hicks refers to one conflict; between the laissez-faire structure he assumes to generate "economic welfare, statically considered" and the undefined structure which promotes stability. While the consequences of informational deficiencies may reduce the conflict (intervention being supported even for the promotion of economic welfare), other conflicts emerge, an obvious one being between public and private interests. These potential conflicts provide changes in economic opinion with the power to induce shifts between sections of the intervention box without interaction with the financial sector, and thus without the accumulation of evidence for or against a particular view.

The second potential property of an innovation is its propensity to destabilize the financial system. The emergence of international bank lending is an important exogenous innovation which has

precipitated, or at least exacerbated, the Third World debt crisis (5a). The evolution of a large NBFI sector is an endogenous destabilising innovation which led to the U.K. secondary banking crises (5b).

The debt crisis remains unresolved while the Lifeboat and 1980 U.K. banking legislation were the official responses to the secondary banking crisis (linkage (5)).

The stability linkages have been discussed more briefly than the "economising" linkages. The interactions between instability and intervention are not less complex. It is just that any additional responses by private and public sectors to instability-induced intervention proceed by the linkages (1 to 4) already discussed.

On Having the True Model

The above remarks presuppose a firm grasp of the appropriate monetary theory on the part of the authorities and economists. This may not be the natural assumption to make. As the financial system evolves, the appropriate monetary theory changes. It is quite possible that analysis and policy are made on the basis of a false model, in this case the model which applied to a pre-innovation financial system⁵. Sometimes there may be only small differences between "true" and "false" models but sometimes the difference may be significant.

One aspect of the UK Competition and Credit Control reforms was the move towards the use of a monetary aggregate. This approach to policy could have been undertaken without initiating bank

5. Hicks (1967) makes much of this factor in explaining Ricardo's monetary analysis and the recommendations of the Currency School.

competition. However, as there was a large, unregulated NBFI sector problems would have arisen in interpreting events. If a monetary policy action led to a decline, say, in M3, it would have been difficult to decide whether it signalled contraction or merely an insignificant, 'cosmetic' result of intermediation. Thus with M3 a poor indicator of monetary stance, interest rate deregulation becomes a way of re-establishing the validity of conducting monetary policy with reference to M3.

This is clearly not the whole story. An equally sensible reform could have been to use a broader aggregate. It has to be said that finding a rationale for the importance attached to banks when a large NBFI sector exists has always been problematic, as has the use of M3 as a monetary indicator. What we observe in CCC is an attempt to apply banking based monetary theory to an economy in which banking-based monetary theory is no longer relevant.

Deregulation and feedback

There are two reasons for expecting a dynamic process when deregulatory intervention is initiated. One reason has already been mentioned; private interests still demand some kinds of regulation. Additionally, a deregulated system may be an unstable system so that eventually, possibly only after a financial crisis, re-regulation may be pursued.

This line of reasoning leads De Cecco (1986) to suggest that the current tendency to endorse and foster competitive auction markets and reductions in market segmentation (one-stop banking), which he

calls the flex-price system, is merely an intermediate step leading from one regulated (fix-price) system to another. This evolution is made necessary, in De Cecco's view, by changes in market power since the system was "frozen" by regulation. A competitive system gives sufficient flexibility for a new hierarchy of interests to be established, whence re-regulation is likely.

V RECENT DEVELOPMENTS

The spate of financial reforms undertaken in several economies have been justified as being required for the successful pursuit of the twin goals of allocative efficiency and monetary control. To aid the process, financial deregulation has been accompanied by foreign exchange deregulation; both the floating of exchange rates and abolition of exchange control.

The conventional approach asserts the rationality of this approach by pointing out that monetary (both aggregative and structural) and external policies form a package with monetary policy, external policy and banking deregulation providing mutual support. The efficacy of monetary policy is improved by floating exchange rates, mobile capital flows and a competitive banking system. Competition in banking ensures that movements in monetary (banking) aggregates are not merely cosmetic, reflecting intermediation between banks and NBFIs with little "real" significance.⁶ Efficiency considerations which underpin the preference for competitive banking are given added

6. Although this argument runs contrary to Brainard and Tobin's (1969) demonstration that interest rate controls on bank deposits (with banks the only intermediary) increase the effectiveness of monetary policy)

support with the abolition of exchange control. Domestic banks find it increasingly difficult to operate a cartel when overseas borrowing is allowed and governmental regulations permit financial institutions to move offshore.

A brief summary of recent developments in several countries provides support for this line of reasoning. In the U.S. in 1980, redefinition of the money stock was implemented, the new aggregates were targetted and the Depository Institutions Deregulation and Monetary Control Act was introduced, which phased out maximum interest rates on deposits, made newer accounts such as NOW accounts widely available and imposed universal reserve requirements on depository institutions.

During this period in the U.K. the government introduced the medium-term financial strategy (MTFS) (1980), abolished the supplementary special deposit scheme (1980), abolished the reserve asset ratio and reduced (and modified) the cash ratio to 1/2 per cent. More recently the stock exchange has been deregulated (1986).

In Australia the regulatory changes have been greater as the banking system was rapidly deregulated in terms of interest rate ceilings, portfolio restrictions and competitive structure over the period 1983-1986. Similarly New Zealand moved quickly during 1984-1986 to abolish numerous interventions such as interest rate ceilings and ratio requirements.

The above self-consistent and somewhat rosy picture does not however summarise recent developments completely. In the US public

discussion on the redefinition of monetary aggregates was stimulated by various financial innovations of the 1970's. And while in its introduction of (partial) deposit insurance, the 1979 UK Banking Act could be said to be market-oriented, it was motivated and shaped by the secondary banking crisis of 1973-75, during which, as Reid (1981) makes clear, a classic 19th century style banking panic was averted only by swift, collective but centrally imposed action. The Act also maintains a role for discretionary policy by making the Bank of England responsible for the granting of a bank licence, on the basis of unspecified criteria.

In the area of monetary policy the quiescence of the MTFS leads to the supposition that it too has suffered a reversal.

Such setbacks are not specific to the U.K. In the U.S. the monetarist experiment initiated in 1979 was abandoned in 1982, while shortly after the 1980 legislation deregulated depository institutions the FDIC was forced to take over the administration of the Continental Illinois Bank. The bank's difficulty was related to excessively risky lending rather than monetary restriction.

In Australia the Bank of Adelaide was compulsorily merged with another bank after the lending activities of its NBFI subsidiary, FCA, led to difficulties.

External policy has not been conducted on strictly laissez-faire lines either, with several countries resorting to persistent and one-sided intervention in foreign exchange markets.

The UK experience merits closer examination. Taking a longer view the U.K. has faced on fewer than six major policy initiatives in less than twenty years: Competition and Credit Control (1971), the Corset (1973), the Lifeboat (1973), the "new" monetary arrangements (1981), MTFS (1980) and the "Big Bang" (1986). These developments are not independent. The corset arose from difficulties in credit control under the post-CCC, deregulated system. The Lifeboat and the 1981 monetary arrangements were a consequence of the secondary banking crisis.

The process appears to have the following stages: new policy - difficulties in implementation - pragmatic "tinkering" - disenchantment - new policy.

As an example, consider monetary control. CCC (new policy) did not achieve close monetary control (difficulties in implementation). The corset (pragmatic "tinkering") was employed as a short term measure, which, however, was needed for quite a long time. The lack of competitive neutrality and the long-run possibility of evasion through disintermediation led to its abandonment (disenchantment), in this case, shortly after, MTFS (new policy) was launched. The recent data for monetary growth suggest that the U.K. is about to embark once again on the circuit sketched above.

Another example concerns the maintenance of rigid distinctions between banks and NBFIs. Such a distinction is difficult to maintain when a bank-owned NBFI or an NBFI with large debts to a particular bank approaches insolvency. The official response is likely to be all too pragmatic and, even in a deregulationist environment, all too

visible. There is no implication here that deregulation causes the problems nor that a visible pragmatic response is necessarily bad. The opposite is likely to be the case. The point is that whatever the causes, intervention occurs, as in the secondary banking crisis, which is at least pragmatic and probably antithetical (and hence disenchanting) to the existing policy.

Furthermore the links between deregulation and instability, and between instability and further reform are what would be expected from the schema developed in this paper and each of the modifications to reform, possibly more accurately called 'reversals', illustrates a link.

Competition and Credit Control illustrates the linkage between endogenous innovation (a long period of intermediation through NBFIs) and private interest intervention. The emphasis is on private interest rather than an public interest in allocative efficiency as the allocative arguments are at their weakest when there is a large NBFi sector. At this stage the banks' interest in maintaining regulations has waned considerably. The inadequacy of nominal regulation would also have been increasingly obvious as inflation began to increase.

CCC was deficient when it came to credit control. In terms of the schema that is a destabilising development. The Corset then follows as a necessary stabilising intervention.

The Hicksian approach comprehends the destabilising nature of an uncontrolled banking system. Hence the relatively unrestrained

lending which took place through the secondary banks, protected to some extent from the perils of moral hazard but without the countervailing constraints on lending, comes as no surprise. Again the Lifeboat was the necessary stabilising intervention.

The Big Bang is one of the latest deregulatory moves. Again it stems from a neglect of the destabilising arm of the schema. It would be optimistic to see it as a one-off improvement in the allocative efficiency of the financial system.

VII SUMMARY AND PROSPECTS

Financial reform tends not to live up to expectations. This paper outlines an approach to financial evolution which explains why this may be so. The essential point is that reform brings about several changes; from private interest attempts to modify the financial system to the attempts to take advantage of profitable evasion to a change in the likelihood of instability. Furthermore, reform may be based on a false outlook. This is particularly true at the present time when the tide of deregulation sweeps in so fast.

The forces which mould financial evolution are complex. There is no obvious reason why the unfettered development which is the outcome of the process should lead to an ideal financial system or even one with a fixed structure. The possibility of long sequences of changes without convergence exists. The combination of the efficient markets hypothesis and deregulated securities markets attracts supporters who see no conflict between the eradication of Harberger triangles and

the stability of the financial system. Another view would point to the importance of "tulip manias" and of the stock market in the Great Depression and wish to guard against recurrence. The interaction between share markets and loan markets is encouraged, for example, in the U.K. by relaxation of membership rules on the Stock Exchange. Banks which have portfolios of shares, loan and foreign exchange are, on one view, very safe—they have taken advantage of risk reduction through diversification. Another view would emphasise their increased exposure to bear markets in shares or foreign exchange. On this view the emergence of financial instability is more likely than hitherto and its severity is likely to be greater.

If a government, convinced of this perspective, attempted intelligent intervention⁷ could it steer a path between a deregulated system in which instability threatens, or a stable but frozen system which could not fulfil the ever-changing demands of intermediation?

This question, which requires us to be able to specify just what is an optimal financial system, is very difficult to answer. However there is an additional difficulty which has not been broached in this paper. The global nature of financial markets and the abolition of many forms of financial market regulation and exchange control make it increasingly difficult for individual countries to take effective policy action in their own self-interest. A single central bank may become relatively powerless. A global financial market which could cause global disruption requires a global solution. The emergence or construction of a world monetary authority is unlikely, and less likely for its need going unheeded.

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